

CLAIMS

1. A stencil wiper apparatus for wiping a stencil of a stencil printer, the apparatus comprising:

5 a material supply assembly including a supply roller to deliver a roll of material, a take-up roller to receive the material, and a drive to move the material across the stencil between the supply roller and the take-up roller; and

a fluid delivery assembly to wet the material, said fluid delivery assembly including an outer tube constructed and arranged to engage the material and to deliver fluid to the
10 material, an inner tube positioned within the outer tube, the inner tube being constructed and arranged to deliver fluid to the outer tube, and a fluid delivery source to deliver fluid to the inner tube.

2. The stencil wiper apparatus set forth in claim 1, the outer tube having a length
15 and a plurality of openings positioned along the length of the outer tube to wet the material along the width of the material.

3. The stencil wiper apparatus set forth in claim 2, the inner tube having a length and a plurality of openings positioned along the length of the inner tube.

20 4. The stencil wiper apparatus set forth in claim 3, said plurality of openings of the outer tube being formed in the outer tube in a position proximate to the material as material engages the outer tube.

25 5. The stencil wiper apparatus set forth in claim 4, said plurality of openings of the inner tube being formed in the inner tube in a position generally opposite the plurality of openings of the outer tube.

30 6. The stencil wiper apparatus set forth in claim 1 further comprising a wiper blade assembly spaced between the fluid delivery assembly and the take-up roller of the material supply assembly, the wiper blade assembly moving the material between a first position in which the material is spaced away from the stencil and a second position in which the material engages the stencil.

7. A stencil wiper apparatus for wiping a stencil of a stencil printer, the apparatus comprising:

a material supply assembly to deliver material across the stencil; and

5 means for evenly applying a fluid on the material prior to the material being placed in a position proximate to the stencil.

8. The stencil wiper apparatus set forth in claim 7, the material supply assembly including

10 a supply roller to deliver a roll of material,

a take-up roller to receive the material, and

a drive to move the material across the stencil between the supply roller and the delivery roller.

15 9. The stencil wiper apparatus set forth in claim 8, said means for evenly applying a fluid comprising:

an outer tube constructed and arranged to engage the material and to deliver fluid to the material,

20 an inner tube positioned within the outer tube, the inner tube being constructed and arranged to deliver fluid to the outer tube, and

a fluid delivery source to deliver fluid to the inner tube.

10. The stencil wiper apparatus set forth in claim 9, the outer tube having a length and a plurality of openings positioned along the length of the outer tube to wet the material
25 along the width of the material.

11. The stencil wiper apparatus set forth in claim 10, the inner tube having a length and a plurality of openings positioned along the length of the inner tube.

30 12. The stencil wiper apparatus set forth in claim 11, said plurality of openings of the outer tube being formed in the outer tube in a position proximate to the material as material engages the outer tube.

13. The stencil wiper apparatus set forth in claim 12, said plurality of openings of the inner tube being formed in the inner tube in a position generally opposite the plurality of openings of the outer tube.

5 14. The stencil wiper apparatus set forth in claim 9 further comprising wiper blade means to move the material between a first position in which the material is spaced away from the stencil and a second position in which the material engages the stencil.

15. A method for wiping a stencil of a printing machine comprising:

- 10 (a) delivering a roll of material having a width across the stencil;
(b) evenly applying fluid on the material across the width of the material; and
(c) placing the material in a position proximate to the stencil.

16. The method set forth in claim 15 further comprising moving the material
15 between a first position in which the material is spaced away from the stencil and a second position in which the material engages the stencil.

17. The method set forth in claim 16, said step of evenly applying fluid on the material comprising:

- 20 (i) providing an outer tube constructed and arranged to engage the material and to deliver fluid to the material,
(ii) providing an inner tube positioned within the outer tube, the inner tube being constructed and arranged to deliver fluid to the outer tube, and
(iii) delivering fluid to the inner tube.

25 18. The method set forth in claim 17 further comprising applying fluid across the width of material from a plurality openings, with a fluid pressure of the fluid at each opening being approximately equal.

30 19. A stencil printer comprising:
a stencil;
a material applicator to apply material on the stencil; and

a stencil wiper assembly to selectively wipe the stencil, the stencil wiper assembly having

a paper supply assembly, and

5 a fluid delivery assembly to wet the paper, the fluid delivery assembly including an outer tube constructed and arranged to engage the paper and to deliver fluid to the paper, an inner tube positioned within the outer tube, the inner tube being constructed and arranged to deliver fluid to the outer tube, and a fluid delivery source to deliver fluid to the inner tube.

10